

**Notes of the tutorial lectures for the Natural Sciences part
by Alice Grimm**

Seventh lecture

DOWNSCALING

1. MOTIVATION

- **Computational resources limit the spatial detail a global GCM can resolve;**
- **The climatic impacts community and policy makers often need information at much finer scales;**
- **Processes acting on local or regional scales often feed into the climate system;**
- **Some specific applications need data at finer resolution.**

2. METHODS

- **Statistical techniques**
- **Coupling of mesoscale or limited area models to GCMs.**
 - Results from a GCM are used as initial and boundary conditions for a LAM, which operates at much higher resolution and frequently with more detailed physical parameterizations.